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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,156

07/28/2003

Vishnu M. Sishtla

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EXAMINER

SAN MARTIN, EDGARDO

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,156

Applicant(s)

SISHTLA, VISHNU M.

Examiner

Edgardo San Martin

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlato et al. (US 6,332,511) in view of Kammerer et al. (US 3,142,354).

With respect to claims 1, 2 and 4, Parlato et al. teach a muffler assembly comprising an outer muffler assembly (Fig.1, Item 130) comprising a plurality of fiberglass discs (Fig.1, Item 122), and an inner muffler assembly (Fig.1, Item 114) comprising a plurality of fiberglass discs (Fig.1, Item 122), wherein the inner muffler assembly (Fig.1, Item 114) generally surrounded by the outer muffler assembly (Fig.1, Item 130) and defining therebetween a gas flow gap (Fig.1) (Col.4, Lines 8 – 34); but fails to disclose the muffler assemblies comprising a plurality of reactive plates.

On the other hand, Kammerer et al. teach a muffler assembly (Fig.1) comprising a plurality of fiberglass discs (Fig.1, Item 7) and a plurality of reactive plates (Fig.1, Item 6).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Kammerer et al. muffler assembly configuration with the Parlato et al. design because the combination of the fiberglass discs and the reactive plates would provide with a plurality of chamber filled with sound absorbing

material; the chambers could work as resonating chambers, that in combination with the sound absorbing material would provide an efficient sound absorbing effect over a broad range of sound frequencies.

With respect to claims 3 and 5, the Examiner considers that it would have been an obvious matter of design choice to rearrange the Parlato et al. and Kammerer et al. fiberglass discs and reactive plates configuration in order to tune the muffler assembly to absorb a specific range of sound frequencies, since it has been held that rearranging of parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

With respect to claim 6, the Examiner takes Official Notice that it is well known in the art of acoustics to establish a distance or depth in the order of $\frac{1}{4}$ of the wavelength of the desired frequency to attenuate because the $\frac{1}{4}$ wavelength would provide an input specific acoustic impedance near the specific characteristic impedance of the fluid.

With respect to claims 7 and 8, the Examiner takes Official Notice that it is well known in the art of acoustics to attach a muffler assembly to a pipe in order to direct the fluid from the sound source to the muffler.

With respect to claim 9 – 11, Parlato et al. teach further comprising a cloth and screen assembly positioned between the inner can and the plurality of fiberglass discs and reactive plates (Col.2, Lines 7 – 26 and Col.4, Lines 17 – 24). Regarding claim 11, the examiner considers that it would have been an obvious matter of design choice to employ polyester as the cloth material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

With respect to claims 12 and 13, Kammerer et al. teach the limitations described in the claims (Fig.1 and Col.2, Line 44 – Col.3, Line 8).

Response to Arguments

2. Applicant's arguments filed on October 17, 2005 have been fully considered but they are not persuasive. The Examiner still considers that the obvious combination of the patents to Parlato et al. and Kammerer et al. teach the limitations described in the claims as discussed above. Furthermore, new claims 9 – 13 are rejected as discussed above.

Regarding claim 6, the Examiner considers that any person with ordinary skill in the art would be motivated to provide a distance in the order of $\frac{1}{4}$ of the wavelength of the desired frequency to attenuate, creating a resonating chamber that would enhance the sound attenuation characteristics of the muffler.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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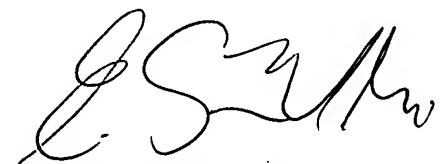
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martin whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín
Primary Examiner
Art Unit 2837
Class 181
January 3, 2006